Web Tools for Fostering and Analyzing
International Counterterrorism
Collaboration and Knowledge Fusion

Steve Lieberman
stlieber@nps.edu

MOVES Research and Education Summit 2010
Session 1
13 July 2010

Report Documentation Page

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE **13 JUL 2010**	2. REPORT TYPE	3. DATES COVERED **00-00-2010 to 00-00-2010**

4. TITLE AND SUBTITLE **Web Tools for Fostering and Analyzing International Counterterrorism Collaboration and Knowledge Fusion**	5a. CONTRACT NUMBER
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Naval Postgraduate School,Department of Computer Science,Moves Institute,Monterey,CA,93943**	8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES
Research & Education Summit, 13-15 July 2010, Monterey, CA

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**5**	

Project Overview: Interdisciplinary Approach

Network Science: The study of network representations of physical, biological, and social phenomena leading to predictive models of these phenomena˙.

Virtual Ethnography: Research methods that adapt ethnography to the study of the communities and cultures created through computer-mediated interactions.
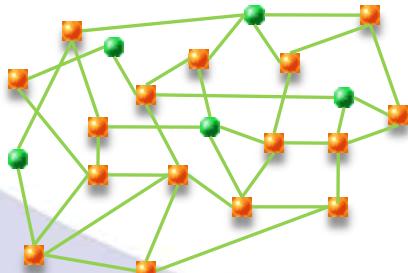
Theoretical approach combines new work in social and behavioral representations from network science with established ethnographic methods for cultural analysis alongside novel HSCB models, methods, and tools.

Project Overview: Key Research Questions

Key Research Questions:

- How do we build effective collaboration and knowledge/data fusion social structures (nets) through computer-mediated interactions?

- What metrics are the best measures of our effectiveness?

- What is the best level of abstraction to develop an actionable behavioral model of CT collaboration and knowledge/data fusion?

- How do we most effectively apply the M&S output/conclusions to existing international collaboration efforts and fusion centers?
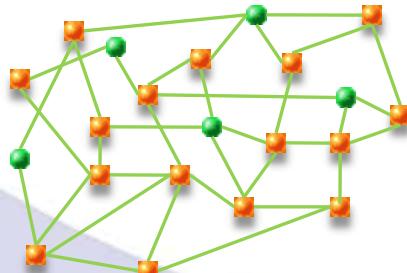
Gather data from computer-mediated interactions, develop model parameters, simulate effects of behavioral and social changes on CT collaboration effectiveness.

Project Overview: HSCB M&S Analysis MMT

HSCB Methods, Models, and Tools for analyzing collaboration:

- Supply a very *large amount* of structured and traceable socio-cultural and behavioral data for current and future HSCB MMTs
- Behavioral Pattern Analyses, Sentiment Analysis/Opinion Mining
- Advanced Social Network Analysis (SNA), large-n network analyses, topologies/network growth, dynamic network processes
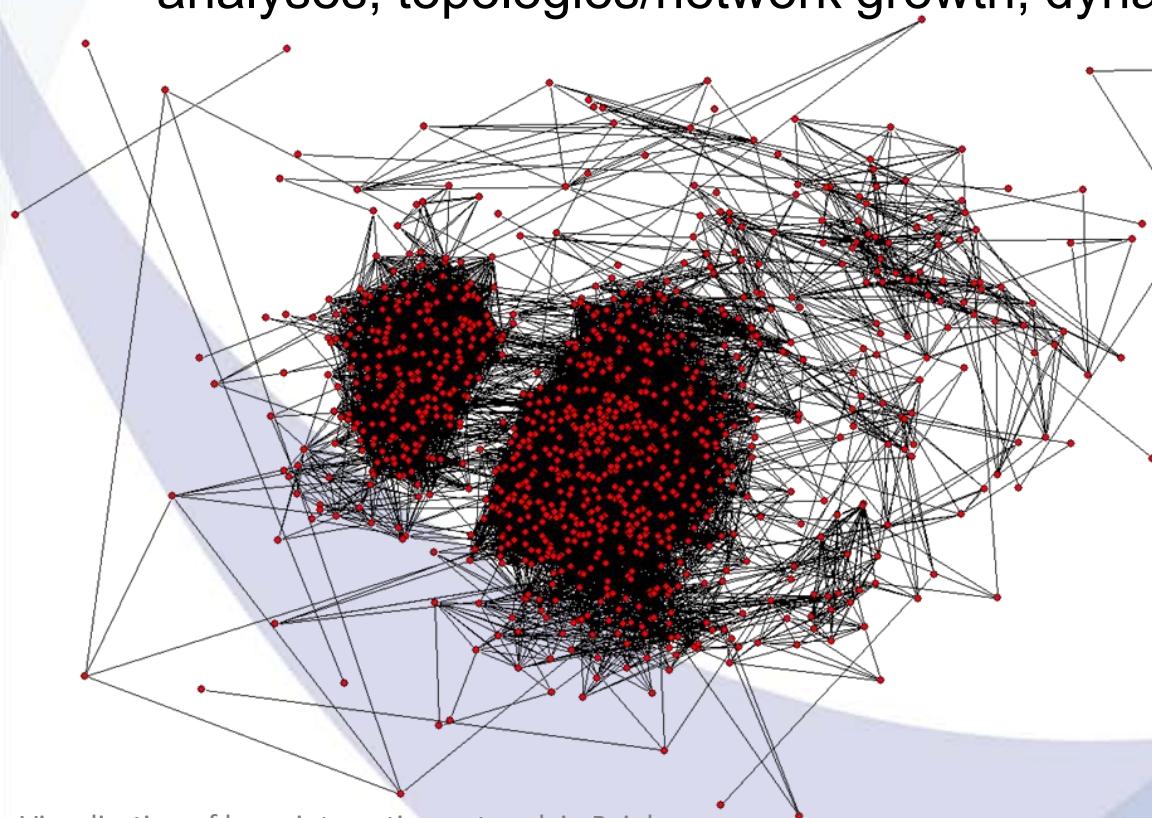
Key Analysis Data:
- Group formation and dissolution
- Opinion consolidation and polarization
- In-group vs. inter-group connectivity
- Presence of bridging ties and groups
- Hierarchy vs. global reachability

Foster efficient teamwork, information sharing and knowledge fusion by linking together the individuals and groups that have the necessary interests, expertise, and information to effectively solve collaborative problems.

Web Tools for Fostering and Analyzing International Counterterrorism Collaboration and Knowledge Fusion

Thank You!

Questions?

PI/POC: Steve Lieberman
stlieber@nps.edu
http://movesinstitute.org/~lieberman